

Clara Treberspurg, Wien Energie, Nov. 24th 2021

Citizen Participation in Solar Power Plants

Wer, wenn nicht wir.



WIEN ENERGIE

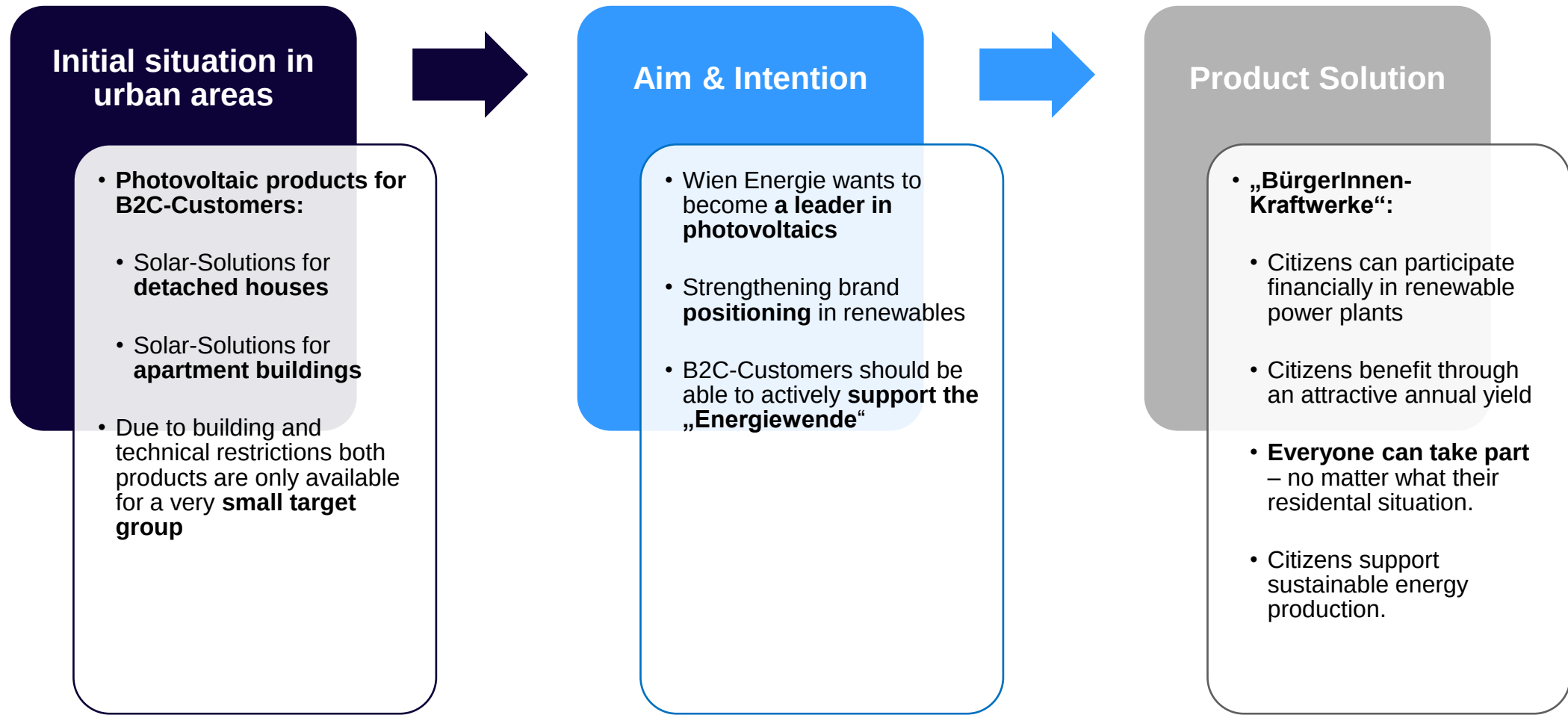
Citizen Participation

Overview of business models

- In **2012**, Wien Energie launched its first „**BürgerInnen-Solarkraftwerk**“, a citizen participation model for photovoltaics.
- Today, **28 such Solar Power Plants** with around **12,000 Customers** and an investment of almost **40 Million Euros** have been realised.
- The business model for citizen participation is being continually developed. So far, the following model options were implemented:
 - Citizen **Solar** Power Plants (sale-and-Lease-back-model)
 - Citizen **Wind** Power Plants
 - Citizen **E-Mobility** participation **with vouchers**
 - Citizen **Solar** Power Plants **with vouchers**

Citizen Participation in Solar Power Plants

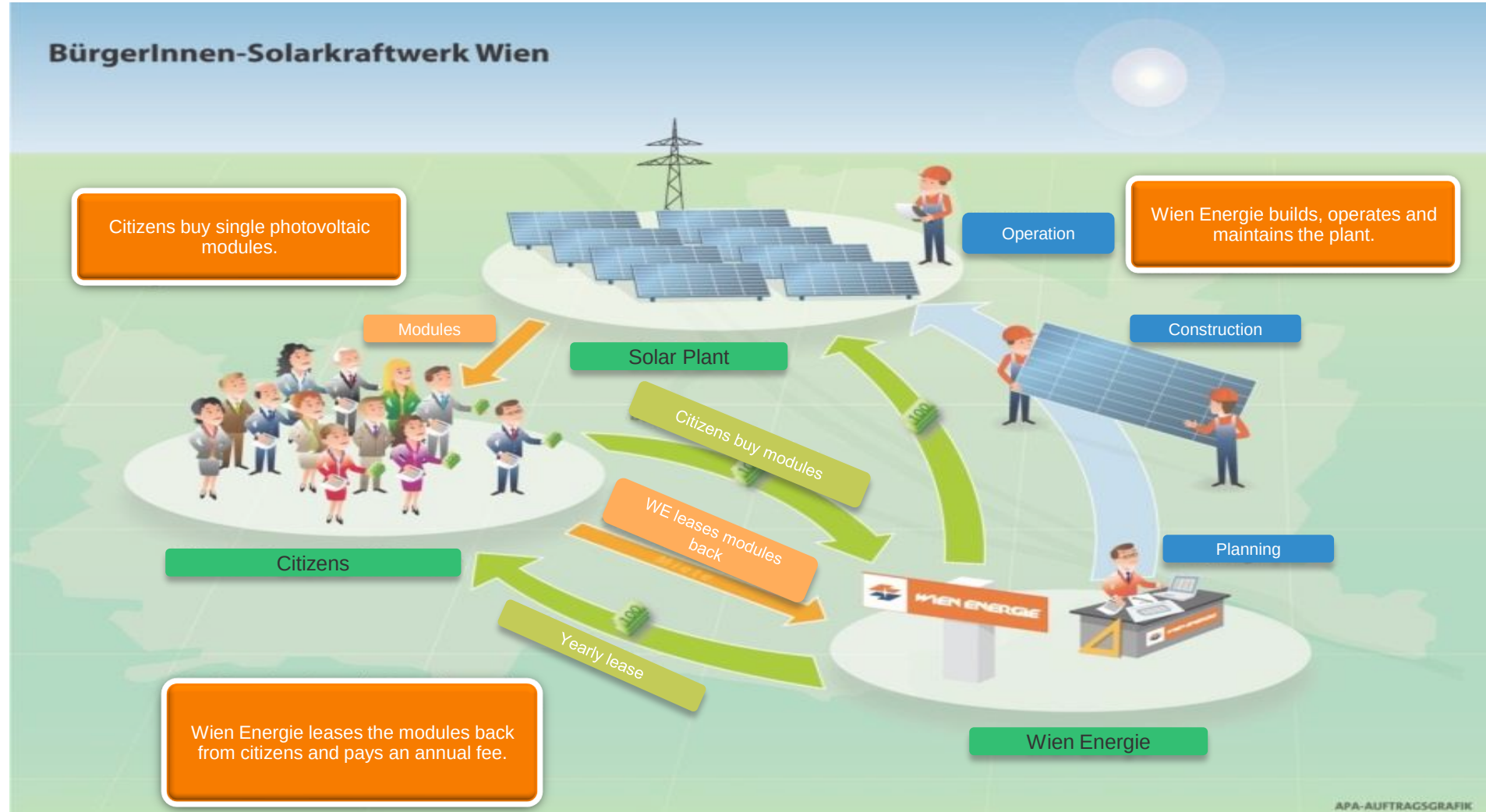
Vision and aim of solar energy participation models



Sale-and-lease-back-model

Citizen Solar Power Plants

The participation model – sale-and-lease-back



Citizen Solar Power Plants

Key Facts – sale-and-lease-back

- Citizens pay **€ 950 per module** (max. 10 modules per Person)
- Wien Energie leases the module/s back and pays 1.55% - 3.1% per year (the percentage is fixed)
- After 25 years, or if the participants want to end the contract earlier, Wien Energie buys the modules back for the former price of **€ 950**
- We started in 2012 with an enormous response - the first array with 2,000 modules was sold out within 24 hours
- Today, **28 such Solar Power Plants** with around **12,000 customers** and an Investment of almost **40 million Euros** have been realised.



Citizen Solar Power Plants

Sale-and-lease-back 2012



Voucher-model with dynamic yield



Wien Energie Community Citizen Solar Power Plant

The participation model (voucher-model with dynamic yield)



Wien Energie installs a solar power plant.



Customers can buy a „Sonnenpaket“ (Voucher package for electricity bill) worth **€ 250** which stands for a symbolic **300 Watt peak** solar panel.

Per bought „Sonnenpaket“ customers get a **yearly electricity voucher**. The value of the voucher depends on the **energy production of the solar power plant**.

Customers can access a **personalised online dashboard**, which provides real-time information of the solar power plant.

After a year of solar power production, customers get a voucher. The value of the voucher **depends on the generated kWh per „Sonnenpaket“ (17 Cent/kWh)**

Wien Energie guarantees a production of at **least 312 kWh (€ 53.04)**.

After **5 years** the participation model ends.

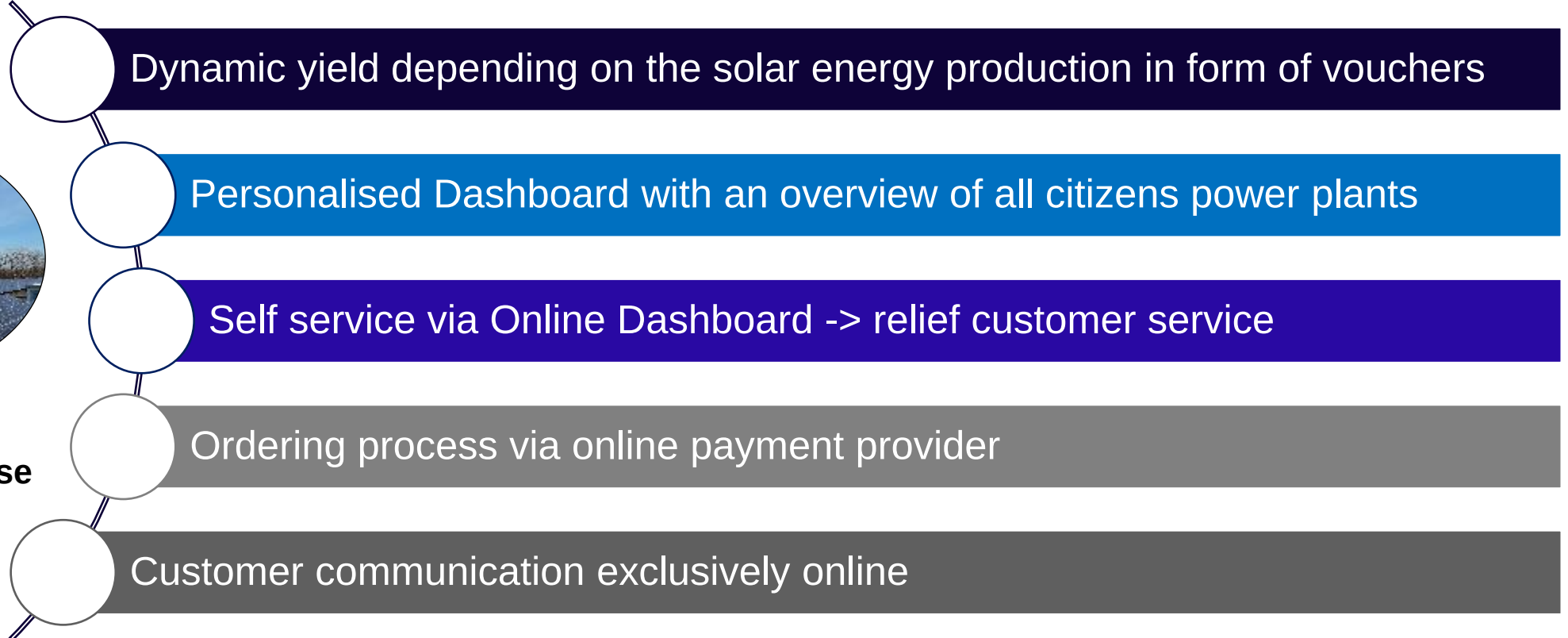
Wien Energie Community Citizen Solar Power Plant

Customer Benefits (voucher-model with dynamic yield)

- The new voucher-model with a dynamic yield is a further optimization of Wien Energie's successful Citizen Power Plants. It aims to create more customer experience and involvement than with the static sale-and-lease-back-model.



**BSKW
Schafflerhofstrasse**



Wien Energie Community Citizen Solar Power Plant

Customer- & Company benefits



Added customer value



- Customer experience close to „having their own photovoltaic system“
- Gamification: Customers can follow real-time solar energy production on personalised online dashboard
- „Sustainable investment“ in renewable energy
- Yields above market interest level in form of vouchers for electricity bill

Company benefits

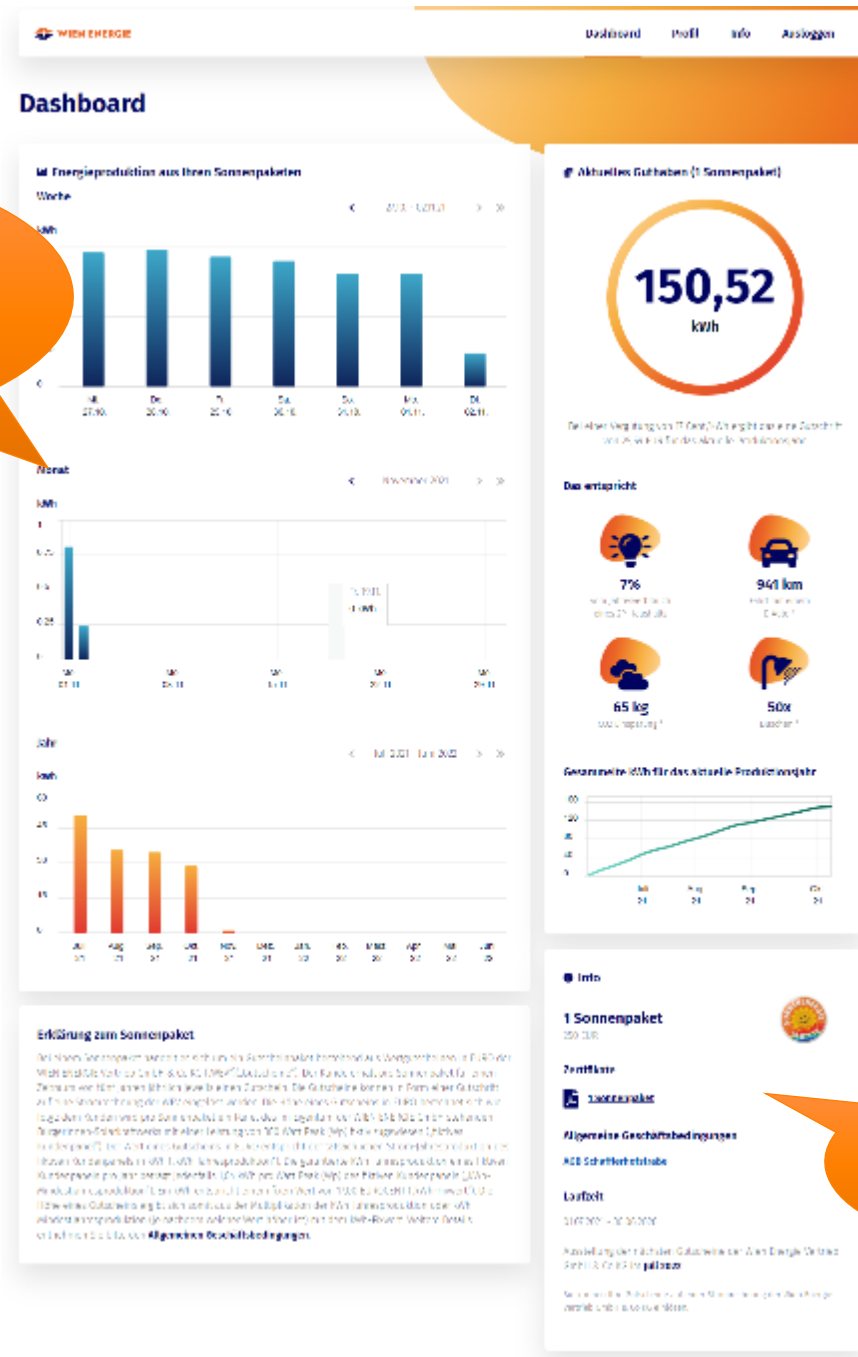


- Strengthening of customer loyalty in energy commodity core business
- Participation models are often a pre-condition for acquiring free space for solar power plants
- Solar power-product for ALL citizens (independent of their residential situation)
- Strengthening market position in solar market

Online Dashboard

Information about
solar power
production & current
voucher value

Information about Citizen Solar Power Plant



Contract details

Wien Energie Community Citizen Solar Power Plant

Citizen Solar Power Plant Schafflerhofstrasse

- BürgerInnen-Solarkraftwerk Schafflerhofstrasse, Vienna
- Performance: 11.45 megawatt
- Expected solar energy production: 12 226 090 kWh/a
- Strong customer engagement through online dashboard:
 - July 2021: 10 500 page views
 - August 2021: 6 800 page views
 - September 2021: 4 581 page views
 - Oktober 2021: 3 411 page views
- Demographic Characteristics Customers
 - 30% female, 70 % male
 - Age:
 - Ca. 30 % -> 50-60 Jahre
 - Ca. 20 % -> 60-70 Jahre
 - Ca. 20 % -> 40-50 Jahre
 - Ca. 15 % -> 30 -40 Jahre
 - Ca. 10 % -> 70-80 Jahre

June 2021:
4000 Sonnenpakete
sold!



Sonnenenergie für alle. Mitmachen für alle.

Wer, wenn nicht wir.



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Jetzt Sonnenpakete* sichern: klimaschuetzen.at

*Bei einem Sonnenpaket handelt es sich um ein Gutscheinpaket bestehend aus Wertgutscheinen in Euro der Wien Energie Vertrieb GmbH & Co KG („WEV“)(„Gutscheine“). Der Kunde erhält pro Sonnenpaket für einen Zeitraum von fünf Jahren jährlich jeweils einen Gutschein. Die Gutscheine können in Form einer Gutschrift auf eine Stromrechnung der WEV eingelöst werden. Die Höhe eines Gutscheins in Euro berechnet sich wie folgt: dem Kunden wird pro Sonnenpaket eine Leistung von 300 Watt Peak (Wp) des im Eigentum der Wien Energie GmbH stehenden BürgerInnen-Solarkraftwerks fiktiv zugewiesen („fiktives Kundenpanel“). Der Wert eines Gutscheins in Euro entspricht der tatsächlichen Strom-Jahresproduktion des fiktiven Kundenpanels in kWh („kWh-Jahresproduktion“). Die garantierte kWh-Jahresproduktion eines fiktiven Kundenpanels pro Jahr beträgt jedenfalls 1,04 kWh pro Watt Peak (Wp) des fiktiven Kundenpanels („kWh-Mindestjahresproduktion“). Eine kWh entspricht einem fixen Wert von 17,00 Eurocent („kWh-Fixwert“). Die Höhe eines Gutscheins ergibt sich somit aus der Multiplikation der kWh-Jahresproduktion oder kWh-Mindestjahresproduktion (je nachdem welcher Wert höher ist) mit dem kWh-Fixwert. Weitere Details entnehmen Sie bitte den Allgemeinen Geschäftsbedingungen. Aktionszeitraum: 1.6.2021 – 30.6.2021

enenergie.at

Wien Energie, ein Partner der EnergieAllianz Austria.

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 **WIEN ENERGIE**

An aerial photograph of Vienna, Austria, taken during the 'golden hour' of sunset. The sun is a bright, glowing orb on the right side of the frame, casting a warm, orange light across the entire scene. The city's dense urban landscape is visible, with a mix of historic European architecture and modern glass-fronted buildings. In the foreground, a large, lush green park with many trees is visible. The overall mood is peaceful and scenic.

Thank you!

Wer, wenn nicht wir.



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WIENER STADTWERKE GRUPPE

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Anja Hintermeier, Wien Energie, Nov. 24th 2021

Renewable Energy Communities

Wer, wenn nicht wir.



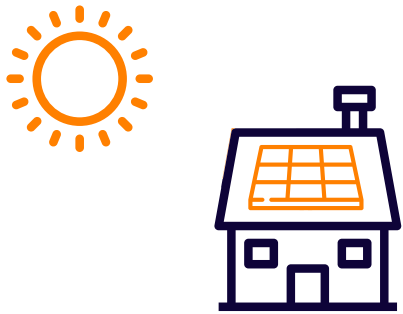
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The possibilities for PV systems increases in Austria

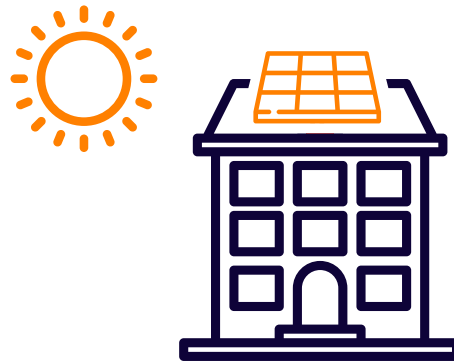
Development of shared use of power and benefits to end users

Before 2017



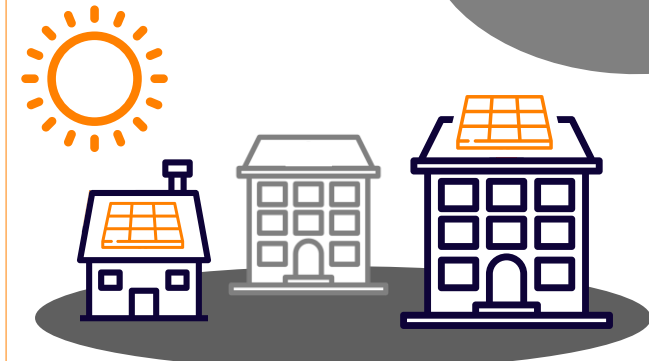
- only direct self-consumption or feed-in was possible
- In a single family house or at a single location

Until today



- a "shared photovoltaic-generation facility" is possible
- electricity shared by several consumers in one building

From 2021

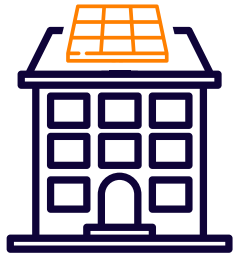


Renewable Energy
Expansion Act

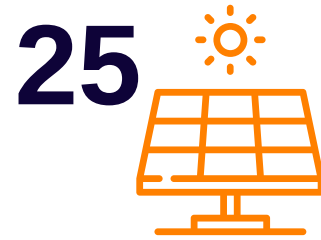
- Local & Regional Renewable Energy Communities
- Shared production and consumption across properties

Wien Energie as a reliable know-how partner for renewable energy communities

Wien Energie ...



... builds community PV-systems in apartment buildings since 2018



... realizes PV plants with > 25 MWp output per year



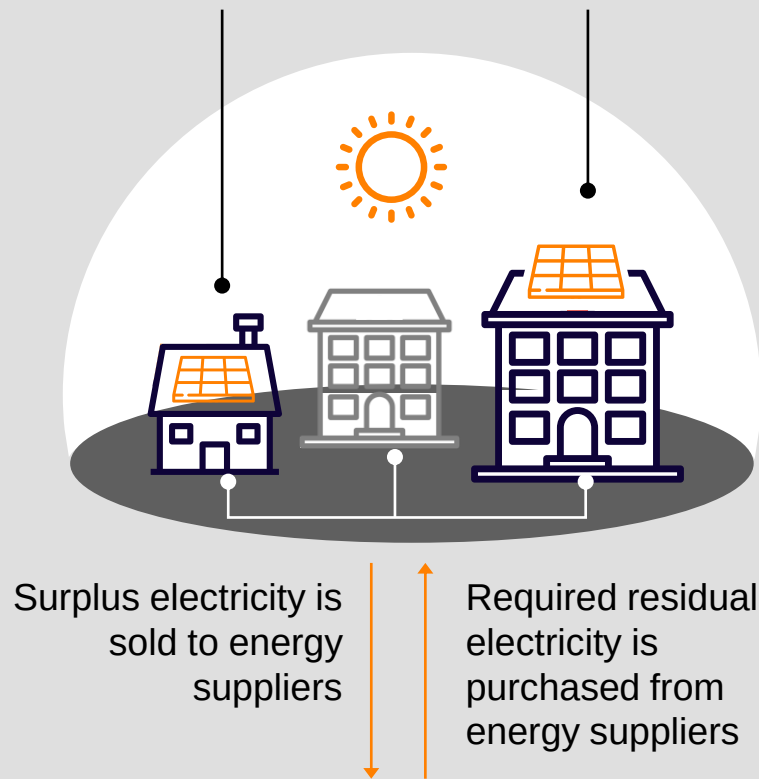
... brings security and carefreeness through established structures and customer service know-how.



... offers everything from a single source and possibility for additional products within a community such as e-mobility etc.

What are renewable energy communities?

Wien Energie plans, installs and services the **PV systems** and offers **carefree services** for energy communities



The generated green electricity can be shared and consumed within the community

The concept of renewable energy communities allows individuals to join together in a community and share and consume the electricity generated in the community.

Participants no longer have to live under one roof, but can join together in a community across multiple photovoltaic plants and buildings within certain surroundings.

Even photovoltaic systems in the field or on the roof next door can now supply electricity to the community.

Members or shareholders can be, for example, private households, schools, municipalities, public authorities, tradespeople and SMEs. Big Companies are excluded (no commercial goals).

Wien Energie designs a tailor-made carefree package for renewable energy communities

Everything from one source

Planning, construction, pre-financing, operation and maintenance of the PV system



Services around the energy community as well as for members

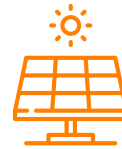
Establishment



Energy analysis & conception of the community

Support for the establishment with advice and sample documents

Management of the PV-system



Wien Energie plans, installs and maintains the PV-system(s).

Wien Energie takes over the surplus of electricity produced and the supply of residual electricity to the members, if necessary.

Administration



Wien Energie provides support with the acquisition of members and contract management.

Wien Energie takes over the coordination with the grid operator.

Member Services



Wien Energie takes over billing of community and members.

Wien Energie takes over customer service and ongoing support for all participants.

Current Early Stage Projects

1. Free Field PV-System – Renewable Energy Community for a small Austrian Village



PV System:

- 2,5 MWP free field next to a village (1500 inhabitants)
- Free field leased by Wien Energie from a private person
- System is built and financed by Wien Energie and leased to the REC

Renewable Energy Community

- founded by the local authority as an association
- Up to 2500 households with an average use of 3500 kwh/year can join (30% of yearly consumption will be covered by community power)
- Reduction of network charges for local production and consumption brings price advantage for end-users

Current Early Stage Projects

2. Roof Top Power Plant in Vienna – Renewable Energy Community for a „Grätzl“



PV System:

- 236 kwp on different Roof Tops within one „Grätzl“
- Roof Tops leased by Wien Energie from a residential developer
- System is built and financed by Wien Energie and leased to the REC

Renewable Energy Community

- founded by the citizens and inhabitants of the „Grätzl“ as an association
- Up to 200 households with an average use of 3500 kwh/year can join (30% of yearly consumption will be covered by community power)
- Reduction of network charges for local production and consumption brings price advantage for end-users

Thank you!

Anja Hintermeier
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